

20 August 1957

MEMORANDUM FOR THE RECORD

FROM: [REDACTED]

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SUBJECT: Trip to [REDACTED]

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1. Messrs. [REDACTED]

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[REDACTED] OC-E, visited the [REDACTED] Massachusetts on 13, 14, and 15 August 1957. The purpose of the trip was to discuss with [REDACTED] Engineers the engineering, operations and security aspects of the Mobile Message Center. The following company officials were contacted:

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[REDACTED] Chief, Electronics Division  
- Project Cost Controller  
- System Design Engineer

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2. The first part of the day was spent at the [REDACTED] offices in Danvers, where we were briefed by [REDACTED] on the amount of progress which had been accomplished on the Mobile Message Center since my last visit. [REDACTED] had prepared rough sketches on how the equipment should be located in the van, the power distribution panel, the A.C. power distribution system, and two studies--one on the amount of storage required, and the other on the amount of adequate ventilation required for the van.

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3. The rest of the day and the following day and a half was spent at the Lawrence plant where we viewed the "mock-up" of the Mobile Message Center, and discussed the following subjects in detail and reached the following decisions:

a. According to the [REDACTED] study, it is necessary to remove 16,000 BTU's from the trailer for adequate ventilation--this is with all the equipment in operation, three men in the van and the sun effect. A ton and a half air conditioner would meet this requirement and also provide adequate cooling within the van. Also, a 1000 cfm exhaust fan will change the air in the van once every minute. It was decided that on these two vans that we would use fans instead of air conditioner since the operational feasibility of the two vans is not yet known, and these may be the only two vans manufactured. The additional operational comfort provided by the air conditioner, therefore, does not warrant the additional cost. The exhaust fan will be 1/12 h.p., 1725 rpm, approximately 100 cfm, and mounted close to the top center of the front shelter wall.

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b. The equipment layout in the van, as shown to us on the [ ] sketches, was agreed upon. This would move the R.T.T.Y. equipment rack from the right-center of the trailer to the right-front of the trailer, thus placing the rack close to the exhaust fan. This would allow the majority of the van's heat, which is generated within this rack, to be removed without circulating in the van.

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c. The on-line teletype position will be located next to the R.T.T.Y. equipment rack as shown on our original drawings. This will allow the operator to establish whether or not he is obtaining readable copy when he is tuning in the R.T.T.Y. signal. The supervisor's position will be located in the left-front of the trailer instead of left-center. Since the length of the safes with the drawers open present a space problem, they should be placed across from the least-used piece of equipment--which will be the R.T.T.Y. rack. [ ] is going to inquire and see if they can find smaller safes which will meet with our specifications.

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d. Instead of supporting heavy cabinets on the top-side walls of the shelter (as shown on our drawings) the [ ] engineers believe there will be sufficient space below the clerk positions for storage cabinets. The cabinets will be of a height equal to that between the mounting frame for the cabinets and the bottom of the clerk's and supervisor's tables. The depth will be approximately 12". This will leave ample foot space for the operators when normally seated in the operating position.

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e. An antenna termination entry box will be mounted on the center of the front wall of the shelter below the exhaust fan. This will allow the antennas to terminate at one central point. The box will be so located in order that the operator may connect the antennas without the use of a ladder. Furthermore, the run of transmission lines from the R.T.T.Y. rack to the termination box will be kept at a minimum.

f. The two whip antenna mounting brackets will be mounted on the two front shelter corners. A length of coaxial cable can then be run down outside the shelter to the antenna termination entry box. Since the mounting brackets of the two whip antennas are at such a height that it would make it very difficult for an operator to detach the two mobile whip antennas, six small folding footsteps--three on each side--will be mounted on the front-vertical sides of the trailer to facilitate the installation of the two ship antennas.

g. A thousand feet of No. 12 AWG copperweld was provided for use as long-wire antennas; however, the AN/GRA-4 Antenna kits have extra antenna wire reels which have a sufficient amount of wire to enable one to erect a long wire antenna. A small quantity of No. 12 AWG copperweld wire will be located in each trailer for miscellaneous uses.

h. It was noticed during this trip that the communication ports were hinged and locked from the outside. This would allow any person to have access to the trailer from the outside. It was decided that if two "Rounds" locks were provided on each port, this would rectify this problem and meet security requirements.

4. During the negotiations of the contract with [ ] a question arose relating to the manufacturer's drawings. The price of the drawings which they quoted us was for producing an original set of manufacturer's drawings which they would provide with each trailer; however, we believed that we should not have to pay the full price for these drawings because [ ] developed these drawings for the Air Force and they are now part of the U. S. Government property which would be available from the Air Force at no cost. [ ] agreed to the above reasoning and lowered the price of the drawings accordingly. However, [ ] was under the assumption that we would accept the manufacturer's drawings in their original state--which means that most of the drawings do not meet with our specifications where we call for all drawings to be on 24" x 36" reproducible paper. Realizing the misunderstanding, they agreed to furnish us the original drawings on 24" x 36" paper, but the extra cost to them would be \$7,500; therefore, they questioned whether or not a compromise could be made where they would furnish all new drawings on 24" x 36" reproducible paper, but we would accept the old drawings as they are. At that time no decision was reached, but after returning to my office and reviewing the problem it has been decided that we would accept the above compromise since the detailed manufacturer's drawings would seldom be used and the drawings showing the trailer and its equipment layout would be 24" x 36".

5. Recently the air conditioning problem has been considered in detail and it was agreed that, although these two trailers will use an exhaust fan for ventilation, ports should be provided on the trailer so that perhaps at a later date (if it is decided to use air conditioning in the trailers) they would not have to be modified. Furthermore, if these trailers prove satisfactory and more are required, it is our opinion that for every three Mobile Message Centers purchased, one trailer housing an air conditioner and larger generators should be purchased.

6. The [ ] will now start production of the two trailer vans. [ ] will forward us a technical change request which shows the changes in the trailer van from our specifications, and the increase or decrease in price required. This will allow us to make the necessary addendums to the specifications.

